

# BUILDING

to address Climate change

by Don Semmens



In times of crisis, be it climate change related, fire, flood, tornado, or other threatening events, including poverty and homelessness, comfortable homes are needed to provide safe shelter for all.

## It's time for some "Home Truths"

1. Australia has a serious shortage of social and affordable housing, with around 25% of people deemed at greatest need having to wait more than a year for placement.<sup>1</sup>
2. While we are improving slowly<sup>2</sup>, a large portion of existing buildings remain very inefficient<sup>3</sup>, contributing to our growing carbon footprint and leaving thousands of people to suffer from the extreme heat and cold of our Australian climate. A study by the CSIRO has shown that a combination of retrofitting and behaviour change made the largest improvement in energy consumption in low income households<sup>4</sup>.
3. Changing weather patterns are increasing the need for urgent action in providing increasing liveability, and better protection across the nation' especially during weather related threats. For example, at the moment our electricity grid

is under extreme pressure during heat waves, and the growing probability that we will face increasing power outages, disrupting not only commercial activities but also increasing potential threats to human life<sup>5,6</sup>.

**4.** The health of all Australians is impacted by our changing climate, E.g. Doctors for the Environment Australia have developed an outline of the effects of climate change on human health and how health can benefit from efforts to lessen and prevent climate change<sup>7</sup>.

**Oh dear!**

Addressing all that sounds like an impossible dream! However, we don't need to become climate scientists; our primary aim should be achieving awareness of the big picture, and then to use that awareness to support and share with other concerned people. Knowledge of the basic principles is enough to move in the right direction, any further knowledge is a bonus.

**This opens doors for deeper discussion gaining knowledge to share with congregations and friends, building windows of opportunity to participate in creating a path to a better future.**

For instance, by sharing ways to make homes more energy efficient; to reduce our environmental footprint and improve the comfort and safety of our homes and those of our neighbours, we can work towards a better future.

**Suggested "home" work.**

**Idea 1.** Block up all the cracks around doors and windows. These on average often add up to a hole about the size of a basketball. For the more adventurous, seal the openings above a sliding door and walls that open into the roof cavity. Reduce the air that circulates around the frames. Easy option, use a door-snake or brush to reduce the flow of air under doors.

**Idea 2.** For summer, identify breeze ways to allow air flow through the house during the night and early morning and late evening.

**Idea 3.** The roof is an area where lots of improvements can be made. Each improvement in insulation can provide big benefits in cooling in summer and heating in winter and save on the power bills. In addition, wind-driven exhaust fans in the roof can remove hot air in summer; unfortunately they cool in winter too.

**Idea 4.** West facing walls/aspect – plant deciduous vegetation, or a roll out shade cloth, blinds, or panels that provide shade and cool in summer and can be removed in winter.

**Idea 5.** When buying or renting consider the energy characteristics of the building, as this will impact power bills and comfort.

**Our Responsible Choice "Where to Next" ?**

It is part of our discipleship to be concerned and take action on these issues. There are changes that are required at all levels of government and community, including the faith community to make this happen.

D&C 162.2c *As a prophetic people ... you are called, under the direction of the spiritual authorities and with the common consent of the people, to discern the divine will for your own time and in the places where you serve.*

D&C 163:3b *Courageously challenge cultural, political, and religious trends that are contrary to the reconciling and restoring purposes of God.*

**Back to The Future**

The call for strong community led awareness has never been greater; now is the time for every caring person to look and challenge our leaders at all levels to increase both the availability and sustainability of appropriate housing for the future.

To provide new and retrofitted current buildings to provide more protection against the elements and at the same time reduce our carbon footprint.

If all our houses were energy efficient, environmentally integrated, socially functional, with easy access to both the buildings and to community services, this would provide a dramatic reduction to energy costs and greater efficiency in day to day life.

So we can truly say: "If you can't stand the heat outside get into the kitchen or the lounge."

**Recommended Reading**

Department of climate change and energy efficiency. (2013) *Your Home: Adapting to climate change*. Australian Government. <https://www.yourhome.gov.au/housing/adapting-climate-change>

Doctors for the Environment. (2016). *Climate change & health in Australia*. [https://www.dea.org.au/wp-content/uploads/2017/02/DEA\\_Climate\\_Change\\_\\_Health\\_Fact\\_Sheet\\_final.pdf](https://www.dea.org.au/wp-content/uploads/2017/02/DEA_Climate_Change__Health_Fact_Sheet_final.pdf)

Environment Victoria. (2020). *Home Truths: A Lack of Information about Household Energy Needs is Costing Victorians*. <https://environmentvictoria.org.au/2020/08/14/home-truths/>

Gilbert + Tobin. (2021) *Social and Affordable Housing: the response to Australia's growing crisis*. <https://www.gtlaw.com.au/insights/social-affordable-housing-response-australias-growing-crisis>.

Harmon-McLaughlin, Katie. (2012). *Caring for the Most Vulnerable*. In Pastors and Leaders Field Guide. Herald House: Independence, MO. <https://www.cofchrist.org/common/cms/resources/Documents/pastors-and-leaders-field-guide.pdf>

United Nations. (2021). *Climate Change 'Biggest Threat Modern Humans Have Ever Faced', World-Renowned Naturalist Tells Security Council, Calls for Greater Global Cooperation*. [press release SC/14445]. <https://www.un.org/press/en/2021/sc14445.doc.htm>



## Earth Stewardship is.....

- using resources wisely and sustainably.

- caring for the natural environment and treating it as something worthy of respect for its own value not just its usefulness for commercial exploitation.

- trying to discourage and avoid practices that lead to misuse of water resources, accumulation of heavy metals, greenhouse gases and other forms of pollution, and loss of biodiversity.

- fostering understanding of environmental issues through education and promotion.

- encouraging the human built environment to be healthy, wholesome and sustainable.

[www.cofchrist.com.au/earth-stewardship](http://www.cofchrist.com.au/earth-stewardship)

Don Semmens is a Community of Christ Elder from Bendigo Congregation, VIC and has experience with energy efficient building, which began about 40 years ago and has continued. This includes designing and owner building his current effective passive solar home. He continues to be involved in both learning and sharing information in a variety of organized community activities relating to new buildings, retrofitting old homes, and the relationship between these activities and wellbeing of those who currently lack access to suitable housing.

Editorial input was also provided by Linda Hazell

<sup>1</sup>Australian Institute of Health and Welfare. (2021). Housing assistance in Australia. <https://www.aihw.gov.au/reports/housing-assistance/housing-assistance-in-australia/contents/entries-exits-transfers-and-wait-times>

<sup>2</sup>CSIRO. (n.d.) Energy rating – National overview. Australian Housing data portal. <https://ahd.csiro.au/dashboards/energy-rating/energy-rating-national-overview/>

<sup>3</sup>Castro-Alvarez, F., Vaidyanathan, S., Bastian, H., & King, J. (2018). The 2018 International Energy Efficiency Scorecard. Report I1801, American Council for an Energy-Efficient Economy, Washington, DC. pp 45-49.

<sup>4</sup>James, M., & Ambrose, M. (2017). Retrofit or behaviour change? Which has the greater impact on energy consumption in low income households?. *Procedia Engineering*, 180, 1558-1567.

<sup>5</sup>Joshi, K. (2021, 23 Feb). Australia was the first casualty of the big blackout lie blaming wind power – the US could be next. *The Guardian:Australia*. <https://www.theguardian.com/environment/2021/feb/23/australia-was-the-first-casualty-of-the-big-blackout-lie-blaming-wind-power-the-us-could-be-next>

<sup>6</sup>Davis, M. & Clemmer, S. (2014). Power Failure: How Climate Change Puts Our Electricity at Risk— and What We Can Do. Union of Concerned Scientists. <https://www.ucsusa.org/sites/default/files/2019-10/Power-Failure-How-Climate-Change-Puts-Our-Electricity-at-Risk-and-What-We-Can-Do.pdf>

<sup>7</sup>Doctors for the Environment. (2016). Climate change & health in Australia. [https://www.dea.org.au/wp-content/uploads/2017/02/DEA\\_Climate\\_Change\\_Health\\_Fact\\_Sheet\\_final.pdf](https://www.dea.org.au/wp-content/uploads/2017/02/DEA_Climate_Change_Health_Fact_Sheet_final.pdf)